

REMARKS/ARGUMENTS

The final Office Action dated June 16, 2010, has been carefully reviewed and the following remarks are responsive thereto. No new matter has been added. All claims remain pending upon entry of the present response. Reconsideration and allowance are respectfully requested.

Claim Rejections – 35 USC § 103

Claim 1 is rejected under 35 U.S.C. §103(a) as being unpatentable over Watson (US. Pub. No.: 2003/0227903) in view of Akman (US Pat: 7,146,410). This rejection is respectfully traversed for at least the following reasons.

Claim 1:

Claim 1 recites, *inter alia*,

“a system for implementing multimedia calls across a private network boundary, comprising a public network and at least one private network, characterized in that the system comprises:

at least one media gateway for connecting with multimedia terminals of various protocols;

at least one boundary gateway for connecting the private network and the public network, and performing the translation of a private network address and a public network address, wherein each boundary gateway is provided with a unique subnetwork ID to correspond to the private network connected therewith;

a call controller for establishing calls and controlling service logics, in which is recorded the correspondence relationship information of all said boundary gateways and the subnetwork IDs;

wherein the call controller processes the call concerning a private network according to the subnetwork ID information.”

None of Watson and Akman, either separately or in combination, teaches or suggests such features.

Comparing with Watson, it can be seen that there are at least the following **distinguishing** technical features in Claim 1:

- “each boundary gateway is provided with a unique subnetwork ID to correspond to the private network connected therewith”;
- “a call controller for establishing calls and controlling service logics, in which is recorded the correspondence relationship information of all said boundary gateways and the subnetwork IDs”;
- “the call controller processes the call concerning a private network according to the subnetwork ID information”.

As to the at least first distinguishing feature “each boundary gateway is provided with a unique subnetwork ID to correspond to the private network connected therewith”: Watson does not disclose this feature. In claim 1, the boundary gateway is provided a **unique** subnetwork ID in the entire domain to correspond to the private network connected therewith; whereas in Watson, the router 130 is only provided with a public address; NAT firewall can only translate a private network IP address to the public address for the further communication between the public network 110 and the private network 112 and 114.

Applicants respectfully disagree with the Examiner’s opinion cited in item 2) from page 11 to page 12. According to paragraphs [0044, 0061-0063], Watson only teaches that a port assignment module 340 assigns a dedicated port to a station 150 according to the least significant byte value of the station’s IP address, for example, if the station’s private IP address is 192.168.1.8, the station will be assigned port 2008. Such the port assignment procedure **has nothing to do with** assigning a boundary gateway a unique subnetwork ID corresponding to the private network connected therewith. A station’s fixed port connected to a private subnetwork is **absolutely not** equivalent to a boundary gateway’s unique subnetwork ID corresponding to the connected private subnetwork. A station is only a terminal belonging to a private subnetwork, while a boundary gateway is a gateway which is used for connecting the whole private subnetwork with a public network and furthermore performs functions such as routing, subnetwork determination, media tunnel management, and so on.

As to the at least second distinguishing feature “a call controller for establishing calls and controlling service logics, in which is recorded the correspondence relationship information of all said boundary gateways and the subnetwork IDs”: Watson does not disclose recording the

correspondence relationship information of all said boundary gateways and the subnetwork IDs in a call controller. In Watson, according to the description in paragraph [0030], PPG (public proxy/gatekeeper) 120 is considered as a call controller to provide call control service for stations 150. Watson only discloses that “PPG120 masquerades un-translated NAT IP addresses in order to keep track of registered stations 150 behind firewalls” [paragraph 0038], and “the MAC address for each station 150 and a corresponding telephone number are previously stored in a database associated with PPG 120” [paragraph 0043]. No disclosure in Watson teaches or indicates the correspondence relationship information of all said boundary gateways and the subnetwork IDs.

Applicants respectfully disagrees the Examiner’s opinion in the last paragraph of page 12, namely, “each IP address will also be assigned a port number based on the index value to the base port [0061-0063] which is a very unique way to identify the subnetwork ID and the call controller (PPG120) monitors and maintains a record of the connection [0081]”. It is inappropriate and not convincing to regard such kind of subnetwork ID identification as being equivalent to the claimed invention’s method which assigns a unique subnetwork ID in the entire domain to a boundary gateway connected to the subnetwork therewith.

In contrast, in paragraph [0031] of Watson, which is also cited by the Examiner in the last paragraph of page 12, “During an exemplary VOIP telephone call between endpoints (e.g., a call from station 150a in network 112 to station 150f in network 114), the initiating station 150a transmits a call setup to PPG 120. In response, PPG 120 finds the IP address of station 150f from a database.” From the above, it can be seen that in Watson PPG indirectly knows a subnetwork ID through obtaining the IP address of the station during a call setup, while in the claimed invention, the call controller directly knows a subnetwork ID through the uniquely assigned subnetwork ID of the boundary gateway and the recorded correspondence relationship information of all said boundary gateways and the subnetwork IDs. Therefore, the claimed invention’s method which assigns a unique subnetwork ID in the entire domain to a boundary gateway connected to the subnetwork therewith is **completely different** from the subnetwork ID identification way of Watson.

As to the at least third distinguishing feature “the call controller processes the call concerning a private network according to the subnetwork ID information”: Watson does not disclose or indicate this feature at all. In the claimed invention, the media gateway sending the

signaling message of the multimedia terminal to the call controller to the boundary gateway connected with the media gateway; upon receiving the signaling message, the boundary gateway establishing a signaling tunnel from the boundary gateway to the call controller according to its own subnetwork ID, and sending the signaling message to the call controller through the signaling tunnel; the call controller receiving the signaling message from the boundary gateway, and returning a response message to the media gateway having sent the signaling message according to the subnetwork ID of the boundary gateway. **By the contrary**, as described in paragraph [0040] in Watson, during the call signaling, station messages to PPG 120, which PPG 120 routes to a destination station 150, thus, PPG 120 monitors the calls and provides control of the calls in the network. **In other words**, Router 130 of Watson is not adapted for establishing a signaling tunnel from the boundary gateway to the call controller according to its own subnetwork ID, and sending the signaling message to the call controller through the signaling tunnel; PPG 120 is not adapted for receiving the signaling message from the boundary gateway, and returning a response message to the media gateway having sent the signaling message according to the subnetwork ID of the boundary gateway.

From the above, Watson does not disclose the above noted features in Claim 1.

Moreover, with the unique features of the claimed invention, the boundary gateway can determine whether the boundary gateway and the call controller are in the same subnetwork according to the subnetwork ID, and if so, the boundary gateway sends the signaling message directly to the call controller, otherwise, the boundary gateway establishes a signaling tunnel through an intermediary boundary gateway(s) to the call controller, and the boundary sends the signaling message to the call controller through the signaling tunnel.

Watson does not achieve such technical effects.

Akman does not disclose the features of claim 1 of the invention either. In particular, Akman only discloses systems and methods for ensuring that controls can be used between Media Gateways and Media Gateway Controllers that reside on separate IP networks. Akman further discloses Network Address Translation (NAT) is strategically implemented to inspect and translate control protocol messages exchanged between nodes on separate IP networks.

Akman does not disclose or indicate Boundary Gateways and the uniquely assigned subnetwork IDs in the entire domain, or recorded correspondence relationship information of all boundary gateways and the subnetwork IDs.

Accordingly, Claim 1 is allowable for at least these reasons.

The above distinguishing technical features are not well known in the art.

Therefore, Claim 1 has been **non-obvious at the time the invention was made** and is in conformity with the provisions of 35 U.S.C. 103(a).

Claims 2-10:

Claims 2-10 are dependent on Claim 1 and are thus allowable for at least the same reasons as Claim 1.

Claim 11:

At least for the similar reasons as independent Claim 1, Applicants respectfully submit that the independent Claim 11 has been non-obvious at the time the invention was made and is in conformity with the provisions of 35 U.S.C. 103(a).

Claims 12-20:

Claim 12-20 are dependent on claim 11 and are thus allowable for at least the same reasons as Claim 16.

CONCLUSION

In light of the above, the Applicants submit that the application is in condition for allowance and respectfully request that a Notice of Allowance be issued in this case. The Applicants also request that the Office telephone the attorneys of record in the event a telephone discussion would be helpful in advancing the prosecution of the present application.

Respectfully submitted,

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